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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,235	01/31/2002	Kiyoshi Nakade	2002_0087A	6549

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EXAMINER

MUROMOTO JR, ROBERT H

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/059,235	Applicant(s) NAKADE, KIYOSHI	
	Examiner Robert H Muromoto, Jr.	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 9 and 16-22 is/are rejected.
- 7) ☒ Claim(s) 4-7 and 10-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lambert et al., in view of Himes.

In the instant application, applicant discloses "A conventional slasher is provided with a moistening device for moistening warp yarns before sizing the warp yarns. Moistening the warp yarns before sizing increases the effect of sizing subsequent to moistening and hence the necessary amount of size can be reduced. The moistening device immerses warp yarns in water contained in a water tank and squeezes the warp yarns with squeeze rollers...". So the recited limitations of claim 1 are all known as conventional elements as recited by the applicant except for the recited moistening unit of the instant invention using a sprinkling or spray system rather than a water tank.

However, Lambert et al. teaches a low wet pickup fabric finishing apparatus. Lambert uses an atomized spray system to produce a low wet pickup, uniformly finished fabric. Lambert uses two spray nozzles on opposing sides of the fabric to produce a

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uniform spray pattern. The resultant fabric has a uniform finish and is produced with lower energy costs not seen in previous methods for wet finishing fabric.

As fabrics are a conglomeration of yarns, it is considered by the examiner that wet finishing of fabrics is well within the same problem solving area as wetting of warp yarns.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to use a spray system to achieve a uniform wet pickup on yarns and fabrics.

As for the recitation that "hot water" is sprinkled on the warp yarns, it is well known that textile processing such as slashing and sizing is performed at relatively high temperatures so it would have been obvious to one of ordinary skill in the art to use hot water as the moistening solution for a slashing process.

Although Lambert teaches essentially all of the limitations of the instant invention, Lambert does not teach spraying the fabric from above the fabric.

However, Lambert states, "It is further obvious that negative pressure means (not shown) can be provided to draw the solution cloud from chamber 1 through opening 5 and into contact with fabric 8 as an alternative to the positive pressure description set forth above (col. 3, lines 38-42)." Additionally, as evidence that this structure is possible, Himes teaches a fluid delivery apparatus, "With reference to FIG. 3, it will be seen that the upper dispenser 17 is disposed above the lower dispenser 18 for conveyance of articles 11 therebetween in a longitudinal, generally horizontal path of travel, as shown (col. 4, lines 32-36)." Therefore it would have been an obvious variant to one of ordinary skill in the art at the time of invention to provide spray from above the fabric to

use a negative pressure system as described by Lambert, as Lambert already teaches spraying from both sides of the fabric.

Allowable Subject Matter

Claims 4-7 and 10-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: claims 4-7 and 10-15 would be allowable because these claims require an otherwise conventional slasher machine to include a nozzle spray system with specific construction orientations, adjustability, and movability.

Response to Arguments

Applicant's arguments filed 12/8/2004 have been fully considered but they are not persuasive. Applicant argues that there is no motivation to combine Himes and Lambert; and that Lambert could not be modified to spray from above. The examiner disagrees. Lambert states that an obvious variant would be to use a negative pressure system rather than the positive pressure system, shown in the reference. A negative pressure system means limitation, as interpreted by the Examiner, would include among such scenarios a system that uses gravity as the pressure means. As evidence the examiner has cited Himes which shows a fluid delivery system that uses spray nozzles from above and below the sheet. The citation of Himes teaches the configuration of having a spray nozzle from above a conveyed sheet of material. A fabric being a

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conveyed sheet of material, Himes and Lambert are clearly in the same problem solving area.

Looking to the modification of Lambert, one of ordinary skill in the art would simply run the warp sheet horizontally rather than vertically and the the spray nozzles which are already stated as working on both sides of the fabric would accordingly now be placed above and below the sheet. This modification, which was stated as an obvious variant in Lambert, is entirely feasible. Applicant has argued that the recycling chamber would not work in such a scenario, but the applicant has improperly modified Lambert, where the simple modification is to rotate the spray nozzles and rotate the warp to run horizontally, and to use a negative pressure means such as gravity.

Additionally, the applicant's amendment, with respect to the spray coming from above the fabric is given no criticality in the specification of the disclosure. Applicant has shown the spray from above in the drawings but is silent as to the advantage or criticality with respect to the wet pickup of the warp due to the spray coming from above. The critical element of the invention is that warp is moistened by a spray unit rather than a vat, as such the spraying function could occur from any location whether it be from above, below or to the side of the warp sheet. Lambert clearly shows an equivalent spraying function to moisten yarns even before the modifications listed above.

Since these are the only arguments presented by the applicant, the rejection remains and is considered to be proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H Muromoto, Jr. whose telephone number is 703-306-5503. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 703-305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bhm

February 16, 2005


JOHN D. CALVERT
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700